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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,827

10/21/2005

Shinya Fukui

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KRATZ, QUINTOS & HANSON, LLP  
1420 K Street, N.W.  
Suite 400  
WASHINGTON, DC 20005

EXAMINER

HIGGINS, GERARD T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

02/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,827	<b>Applicant(s)</b> FUKUI ET AL.	
	<b>Examiner</b> GERARD T. HIGGINS	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/25/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>02/25/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The disclosure is objected to because of the following informalities:
  - a. On page 16, line 2 should probably have "producers" and not "produces."
  - b. The sentence starting on page 25, line 10 is awkward.
  - c. There is a discrepancy between the published application and the specification as filed, please see page 24, line 4.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "positioned distanced from a location of measuring" in claim 5 is a relative term which renders the claim indefinite. The term "positioned distanced from a location of measuring" is not defined by the claim, the specification does not provide a

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standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Examiner will treat this claim that any distance is appropriate for the positioning of the data bank from the location of measuring.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Hatanaka et al. (JP 2002-103782), machine translation included.

Hatanaka et al. teach an anti-falsifying label to be stuck on articles, and the simple detection equipment and detection method thereof [0001]. Some of the anti-falsifying means are disclosed at [0009] to [0011], specifically fluorescent ink is mentioned at [0011] and [0018], which become visible under illumination with UV light.

With regard to claim 2, a fluorescent ink would inherently exhibit a line spectrum as that is what fluorescence is.

7. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Hampp (5,670,239).

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Hamppe discloses an article treated with a virtually forge proof composition that can be used to identify it in terms of origin (col. 1, lines 30-57). The composition is not detectable to the naked eye (col. 1, line 40). The composition may be applied by the various means at col. 3, line 28-34, including printing. With respect to the detection methods, these include x-ray fluorescence spectroscopy (col. 3, line 42-55).

With regard to claim 2, the compositions used produce fluorescent line-spectra (col. 4, line 5-18).

With regard to claim 3, the metals mentioned at col. 5, lines 10-18 include europium, neodymium, and holmium, which all have unfilled 4f electron shells and were analyzed using x-ray fluorescence.

With regard to claim 4, it describes spectrophotography, which is a method of detecting fluorescence emitted after excitation by a specific wavelength of light. The metals they mention all have specific, reproducible x-ray fluorescence spectra that would be compared to the fluorescence spectra acquired during the authentication process (col. 4, lines 5-27).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatanaka et al. (JP 2002-103782), as applied to claims 1 or 2, in view of Jalon (5,118,349).

Hatanaka et al. disclose all the limitations of applicants' claims 1 and 2 in section 6 above; however, they fail to disclose using an information presenting substance that contains either an element of incomplete 3d or 4f shell electrons.

Jalon discloses using rare-earth metal chelates as fluorescent security markings for valuable documents (col. 1, lines 13-39). They disclose using europium (red) or terbium (green) as preferential emitters, both of which have unfilled 4f shells.

Since Hatanaka et al. and Jalon are both drawn to the use of fluorescence emitters for protecting valuable articles and subsequent identification of said articles, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the simple substitution of the well-known rare-earth metal fluorescent compounds of Jalon as the fluorescent security markings of Hatanaka et al. The results of this substitution would have yielded predictable results to one having ordinary skill in the art of steganography.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hatanaka et al. (JP 2002-103782), as applied to claim 4, in view of Takeda (JP 2002-104626).

Hatanaka et al. disclose all the limitations of applicants' claim 4 in section 6 above; however, they fail to disclose a data bank that consolidates the information with respect to the fluorescence data and the product information.

Takeda discloses an electronic tag for articles that are registered by a system [0001] and [0006]. These tags may be used to control inventory of the object, provide a specific location of the object, and supervise movement of the article [0006]. It can be attached to foodstuffs and the movement of the articles may be managed from a remote place [0007], such as a server (data bank), [0023]-[0024] and claims 10 and 11.

Since Hatanaka et al. and Takeda are both drawn to detection of information relating to products and the management of that information; it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine by known methods the remote server management of product data of Takeda with the method of authenticating of fluorescently labeled products of Hatanaka et al. The results of this combination would have been predictable to one having ordinary skill; further, one of ordinary skill would recognize that each of these elements would perform the same in combination as they had separately.

### ***Double Patenting***

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 4 directed to an invention not patentably distinct from claim 5 of commonly assigned Application No. 10/519,747. Specifically, see sections 12 below.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned applications, discussed in sections 12 and 13 below, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.



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12. Claim 4 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 5 of copending Application No. 10/519,747. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both relate a method of detecting and identifying encoded information on an article by using fluorescence; however, it fails to include a comparison between the fluorescence and the identity of the product to determine the authenticity of the product. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of identifying a material to include a step, wherein a comparison is made to determine the authenticity of the object that is being exposed to fluorescent light. This is the well-known procedure of steganography used in the authentication of bank notes using specific fluorescent materials.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARD T. HIGGINS whose telephone number is (571)270-3467. The examiner can normally be reached on M-F 7:30am-5pm est. (1st Friday off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gerard T Higgins, Ph.D.  
Examiner  
Art Unit 1794

/Gerard T Higgins, Ph.D./  
Examiner, Art Unit 1794

*Callie Shosho*

*Callie Shosho  
Supervisory Patent Examiner*